

Diode-pumped laser amplifier

Veröffentlichungsnr. (Sek.) ☐ US6661568
Veröffentlichungsdatum : 2003-12-09
Erfinder : HOLLEMANN GUENTER (DE); SYMANOWSKI JAN (DE)
Anmelder : JENOPTIK LASER OPTIK SYSTEME G (DE)
Veröffentlichungsnummer : ☐ DE10043269
Aktenzeichen:
(EPIDOS-INPADOC-normiert) US20010939401 20010824
Prioritätsaktenzeichen:
(EPIDOS-INPADOC-normiert) DE20001043269 20000829
Klassifikationssymbol (IPC) : H01S3/00
Klassifikationssymbol (EC) : H01S3/08
Korrespondierende
Patentschriften ☐ CA2354632, ☐ FR2813451, ☐ GB2370684, JP2002141589,
☐ US2002036821

Bibliographische Daten

In a diode-pumped laser amplifier the inventive object is to increase the tolerance of the amplifier arrangement relative to variations of the input parameters significantly, so that fine-tuning is no longer necessary for guaranteeing the stability of the amplifier. Into a laser-active solid-state medium where a thermal lens of a strength which is different in orthogonal planes is generated in consequence of the irradiated pump radiation, a laser beam to be amplified is directed into the laser-active solid-state medium while being focused in the plane with a strong thermal lens, wherein a beam waist that is being generated lies in the area of the thermal lens. The laser amplifier can be used for amplifying the radiation of an oscillator.